Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1-18. (Cancelled)

19. (Cancelled)

20. (Currently Amended) ~~A~~ The process according to claim ~~19~~ 33 wherein the antigen further comprises an exogenous hydrophobic ~~material~~anchor ~~of~~that is ~~said vaccine composition is~~ a C8-C 18 fatty acyl group.

21. (Currently Amended) ~~A~~ The process according to claim ~~19~~ 33 wherein the antigen further comprises an exogenous hydrophobic ~~material~~anchor ~~of said vaccine composition~~that is (a) lauroyl, (b) Phe Leu Leu Ala Val (SEQ ID NO:2), or (c) Val-Ala-Leu-Leu-Phe (SEQ ID NO:3).

22. (Cancelled)

23. (Currently Amended) ~~A~~ The process according to claim ~~22~~ 33 wherein the ~~viral envelope~~ C-terminal truncated gp160 protein is an oligomeric C-terminal truncated gp160 from HIV-1.

24. (Currently Amended) ~~A~~ The process according to claim ~~23~~ 33 wherein the amino acid sequence of said ~~oligomeric~~ C-terminal truncated gp160 protein ~~has~~ consists essentially of the sequence ~~of~~ set forth at residues 33-681 of SEQ IDNO:1.

25. (Cancelled)

26. (Currently Amended) ~~A~~ The process according to claim ~~19~~ 33 wherein the C-terminal truncated gp160 protein is recombinantly produced.

27. (Currently Amended) ~~A~~ The process according to ~~claim 19~~either claim 20 or claim 21, wherein said vaccine composition is formed by

(a) ~~bonding~~ adding the exogenous hydrophobic ~~material~~ anchor to ~~said~~ the C-terminal truncated gp160 protein to form ~~a hydrophobic-hydrophilic compound~~ an anchored C-terminal truncated gp160 protein; and

(b) admixing ~~said compound~~the anchored C-terminal truncated gp160 protein with said proteosomes~~, bioadhesive nanoemulsions, or both~~ such that ~~said antigen~~the anchored C-terminal truncated gp160 protein is complexed with said proteosomes ~~or nanoemulsion.~~; and

(c) combining the anchored C-terminal truncated gp160 protein complexed with said proteosomes with the bioadhesive nanoemulsions.

28. (Currently Amended) ~~A~~ The process according to claim 27 wherein said admixing step is performed in the presence of a detergent, and is followed by the step of ~~(c)~~ ———removing the detergent by dialysis.

29. (Currently Amended) ~~A~~ The process according to claim 27 wherein said admixing step is performed by lyophilization.

30–32. (Cancelled)

33. (New) A process for inducing a neutralizing antibody response in a subject against HIV comprising administering a vaccine composition directly to mucous membranes, wherein the vaccine composition comprises:

(a) an antigen that comprises a C-terminal truncated gp160 protein, wherein the C-terminal truncated gp160 protein includes the endogenous hydrophobic amino acid sequence set forth at positions 523-551 of SEQ ID NO:1;

(b) proteosomes, wherein the proteosomes are complexed or coupled with the antigen; and

(c) bioadhesive nanoemulsions,

wherein the composition elicits neutralizing antibodies to HIV in a subject upon administration of the composition to the subject, and wherein the neutralizing antibodies are present in one or more of vaginal secretions, intestinal secretions, lung secretions, and feces.

34. (New) The process according to claim 33 wherein the vaccine composition is administered by an intranasal or respiratory route.